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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/805,446	03/14/2001	Jung-wan Ko	1293.1108	2059

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EXAMINER

BONURA, TIMOTHY M

ART UNIT	PAPER NUMBER
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2114

DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/805,446

Applicant(s)

KO ET AL.

Examiner

Tim Bonura

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 41 and 42 is/are allowed.
- 6) ☒ Claim(s) 1-3, 7, 9-11, 15, 19, 26-29, 34, 37-39 and 43 is/are rejected.
- 7) ☒ Claim(s) 4-6, 8, 12-14, 16-18, 20-25, 30-33, 35, 36, 40 and 44 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 7, 9-11, 15, 19, 26-29, 34, 37-39 and 43 are rejected under 35

U.S.C. 103(a) as being unpatentable over Helper, U.S. Patent Number 5,432,801 and further in view of Nakane, U.S. Patent Number 6,621,782. Regarding claim 1:

a. Regarding the limitation of “operating the recording and reproducing apparatus in a read or write mode, using a test disc with test reference information,” Helper discloses an error detection algorithm using a reference disc that reads values from the disc and performs first and second error detection. (Lines 19-27 of Column 2).

b. Regarding the limitation of “checking whether the recording and reproducing apparatus operates in the read or write mode to verify the DMA information analyzing function of the recording and reproducing apparatus,” Helper discloses an optical disc system. Helper also discloses that the test data passes through application specific integrated circuitry. (Lines 7-12 of Column 3). Helper does not verify the operations of the DMA information analyzing function in a read and write mode. Nakane discloses an optical media with primary and secondary DMA. (Lines 13-17 of Column 3). Nakane discloses a system that can test and analysis tests of data from an optical media in a record or

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reproduce mode. (Lines 59-63 of Column 4). It would have been obvious to one of ordinary skill in the art to combine Helper's testing of an optical disc system error checking circuitry with Nakane's test and analysis recording or reproducing apparatus of DVD DMA. One of ordinary skill in the art would have been motivated to combine the art because Helper discloses that additional media and format types can be checked based on criteria (Lines 44-50 of Column 5), likewise Nakane discloses that means to detect errors DVD-RAM via varying criteria. (Lines 3-12 of Column 9).

3. Regarding claim 2, Nakane discloses a system wherein the test data is stored on an optical disk. (Lines 40-43 of Column 4). It is well known in the art to mirror or make copies of optical discs for distribution purposes by software manufactures.

4. Regarding claim 3, Nakane discloses a system wherein the test data is stored on an optical disk. (Lines 40-43 of Column 4). DMA information is included on all DVD disks. Thereby both Nakane and Jeong teach of DMA files. It is well known in the art to mirror or make copies of optical discs for distribution purposes by software manufactures.

5. Regarding claim 7, Nakane discloses a system wherein the test disc can be an interchangeable (Lines 41-46 of Column 7).

6. Regarding claim 9:

c. Regarding the limitation of "using a test disc with test reference information," Helper discloses an error detection algorithm using a reference disc that reads values from the disc and performs first and second error detection. (Lines 19-27 of Column 2).

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- d. Regarding the limitation of “a drive to be tested translating the DMA information recorded on the test disc when the test disc is loaded thereinto and attempting to perform a process in read or write mode,” Helper discloses a optical disc system. Helper also discloses that the test data passes through application specific integrated circuitry. (Lines 7-12 of Column 3). Helper does not verifying the operations of the DMA information analyzing function in a read and write mode. Nakane discloses an optical media with primary and secondary DMA. (Lines 13-17 of Column 3). Nakane discloses a system that can test and analysis tests of data from an optical media in a record or reproduce mode. (Lines 59-63 of Column 4). It would have been obvious to one of ordinary skill in the art to combine Helper’s testing of an optical disc system error checking circuitry with Nakane’s test and analysis recording or reproducing apparatus of DVD DMA. One of ordinary skill in the art would have been motivated to combine the art because Helper discloses that additional media and format types can be checked based on criteria (Lines 44-50 of Column 5), likewise Nakane discloses that means to detect errors DVD-RAM via varying criteria. (Lines 3-12 of Column 9).
7. Regarding claim 10, Nakane discloses a system wherein the test data is stored on an optical disk. (Lines 40-43 of Column 4). It is well known in the art to mirror or make copies of optical discs for distribution purposes by software manufactures.
8. Regarding claim 11, Nakane discloses a system wherein the test data is stored on an optical disk. (Lines 40-43 of Column 4). DMA information is included on all DVD disks. Thereby both Nakane and Jeong teach of DMA files. It is well known in the art to

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mirror or make copies of optical discs for distribution purposes by software manufactures.

9. Regarding claim 15, Nakane discloses a system wherein the test disc can be an interchangeable (Lines 41-46 of Column 7).

10. Regarding claim 19:

e. Regarding the limitation of “storing test information having an incorrect start logical sector number of at least one zone on a test disc,” Nakane discloses a system that can store sector defect errors in a storing means. (Lines 25-32 of Column 10).

f. Regarding the limitation of “determining whether the recording and reproducing apparatus performs a process in a reading or writing mode on the test disc,” Helper discloses an optical disc system. Helper also discloses that the test data passes through application specific integrated circuitry. (Lines 7-12 of Column 3). Helper does not verify the operations of the DMA information analyzing function in a read and write mode. Nakane discloses an optical media with primary and secondary DMA. (Lines 13-17 of Column 3). Nakane discloses a system that can test and analysis tests of data from an optical media in a record or reproduce mode. (Lines 59-63 of Column 4). It would have been obvious to one of ordinary skill in the art to combine Helper’s testing of an optical disc system error checking circuitry with Nakane’s test and analysis recording or reproducing apparatus of DVD DMA. One of ordinary skill in the art would have been motivated to combine the art because Helper discloses that additional media and format types can be checked based on criteria (Lines 44-50 of Column 5),

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likewise Nakane discloses that means to detect errors DVD-RAM via varying criteria. (Lines 3-12 of Column 9).

11. Regarding claim 26, Nakane discloses a system wherein the test disc can be an interchangeable (Lines 41-46 of Column 7).

12. Regarding claim 27, Nakane discloses a system that will record to a disc even if errors have been detected on the disc. (Lines 45-56 of Column 9).

13. Regarding claim 28:

g. Regarding the limitation of “a reference drive storing test information having an incorrect start logical sector number of at least one zone on a test disc,” Nakane discloses a system that can store sector defect errors in a storing means. (Lines 25-32 of Column 10).

h. Regarding the limitation of “wherein the test disc is usable to determine whether the recording and reproducing apparatus performs a process in a reading or writing mode on the test disc,” Helper discloses an optical disc system. Helper also discloses that the test data passes through application specific integrated circuitry. (Lines 7-12 of Column 3). Helper does not verify the operations of the DMA information analyzing function in a read and write mode. Nakane discloses an optical media with primary and secondary DMA. (Lines 13-17 of Column 3). Nakane discloses a system that can test and analysis tests of data from an optical media in a record or reproduce mode. (Lines 59-63 of Column 4). It would have been obvious to one of ordinary skill in the art to combine Helper’s testing of an optical disc system error checking circuitry with Nakane’s test and analysis recording or reproducing apparatus of DVD DMA. One of ordinary skill

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in the art would have been motivated to combine the art because Helper discloses that additional media and format types can be checked based on criteria (Lines 44-50 of Column 5), likewise Nakane discloses that means to detect errors DVD-RAM via varying criteria. (Lines 3-12 of Column 9).

14. Regarding claim 29, Nakane discloses a system with a verifier for reproducing data on a disc. (Lines 61-63 of Column 4).

15. Regarding claim 34, Nakane discloses a system with a primary and secondary defective list. (Lines 13-17 of Column 3).

16. Regarding claim 37, Nakane discloses a system wherein the test disc can be an interchangeable (Lines 41-46 of Column 7).

17. Regarding claim 38, Nakane discloses a system that will record to a disc even if errors have been detected on the disc. (Lines 45-56 of Column 9).

18. Regarding claim 39:

i. Regarding the limitation of “storing test information having an incorrect start logical sector number of at least one logical sector of at least one zone on a test disc,” Nakane discloses a system that can store sector defect errors in a storing means. (Lines 25-32 of Column 10).

j. Regarding the limitation of “determining whether the recording and reproducing apparatus performs a process in a reading or writing mode on the test disc,” Helper discloses an optical disc system. Helper also discloses that the test data passes through application specific integrated circuitry. (Lines 7-12 of Column 3). Helper does not verifying the operations of the DMA information analyzing function in a read and write mode. Nakane discloses an optical media

with primary and secondary DMA. (Lines 13-17 of Column 3). Nakane discloses a system that can test and analysis tests of data from an optical media in a record or reproduce mode. (Lines 59-63 of Column 4). It would have been obvious to one of ordinary skill in the art to combine Helper's testing of an optical disc system error checking circuitry with Nakane's test and analysis recording or reproducing apparatus of DVD DMA. One of ordinary skill in the art would have been motivated to combine the art because Helper discloses that additional media and format types can be checked based on criteria (Lines 44-50 of Column 5), likewise Nakane discloses that means to detect errors DVD-RAM via varying criteria. (Lines 3-12 of Column 9).

19. Regarding claim 43:

k. Regarding the limitation of "a light source to emit a light," Nakane discloses a system with a laser. (Lines 39-40 of Column 9).

l. Regarding the limitation of "a focusing element to focus the light onto the optical disc to record and reproduce the information," Nakane discloses a controller for the light source that records data onto the optical disc. (Lines 41-44 of Column 9).

m. Regarding the limitation of "a controller to control the light source, said controller being verified to update and generate defect management are information," Nakane discloses a system wherein the controller records or reproduces data onto an optical disc. (Lines 65-67 of Column 9 and Lines 1-2 of Column 10).

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n. Regarding the limitation of “storing test information having an incorrect start logical sector number of at least one zone on a test disc,” Nakane discloses a system that can store sector defect errors in a storing means. (Lines 25-32 of Column 10).

o. Regarding the limitation of “determining whether the recording and reproducing apparatus performs a process in a reading or writing mode on the test disc,” Helper discloses an optical disc system. Helper also discloses that the test data passes through application specific integrated circuitry. (Lines 7-12 of Column 3). Helper does not verify the operations of the DMA information analyzing function in a read and write mode. Nakane discloses an optical media with primary and secondary DMA. (Lines 13-17 of Column 3). Nakane discloses a system that can test and analysis tests of data from an optical media in a record or reproduce mode. (Lines 59-63 of Column 4). It would have been obvious to one of ordinary skill in the art to combine Helper’s testing of an optical disc system error checking circuitry with Nakane’s test and analysis recording or reproducing apparatus of DVD DMA. One of ordinary skill in the art would have been motivated to combine the art because Helper discloses that additional media and format types can be checked based on criteria (Lines 44-50 of Column 5), likewise Nakane discloses that means to detect errors DVD-RAM via varying criteria. (Lines 3-12 of Column 9).

Double Patenting

20. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

21. Claim 41 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 62 of copending Application No. 09/805,437. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 43 states "a light source to emit a light; a focusing element to focus the light onto the optical disc to record and reproduce the information; a controller to control the light source, said controller being verified to update and generate defect management are information." Claim 62 states "a light source to emit a light; a focusing element to focus the light onto the optical disc to record and reproduce the information; a controller to control the light source and update and generate defect management area information after performing extending a supplementary spare area on the optical disc so that the defect management information is compliant with a standard." Claim 43 is a broader form of claim 62 is the co-pending application.

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22. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

23. Claims 4-6, 8, 12-14, 16-18, 20-25, 30-33, 35, 36, 40, and 44 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

24. Claims 41-42 are allowed.

25. The following is a statement of reasons for the indication of allowable subject matter:

p. Regarding claim 4-5, 12-13: The prior art of record fails to teach a test reference information is DMA mirror file in which a start logical sector number of at least one zone is wrongly recorded.

q. Regarding claim 6, 14: The prior art of record fails to teach a test reference information is DMA mirror file in which a start logical sector number each zone is wrongly recorded.

r. Regarding claim 8: The prior art of record fails to teach translating the DMA information recorded on the test disc when the test disc is loaded thereinto and attempting to perform a process in a read or write mode.

s. Regarding claim 16: The prior art of record fails to teach recording to a blank disc regardless of the condition of the disc.

t. Regarding claim 17-18: The prior art of record fails to teach a verifier for verifying a state of the drive to be test by checking whether the drive to be tested

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operates in the read or write mode when a start logical sector number of at least one zone recorded on the test disc is incorrect.

u. Regarding claim 20, 22, 25: The prior art of record fails to teach wherein start logical sectors of each zone are incorrect.

v. Regarding claim 21: The prior art of record fails to teach wherein start logical sectors of each zone are incorrect.

w. Regarding claim 23: The prior art of record fails to teach test information is a DMA mirror file having disc definition structure, primary defect list and secondary defect list information, wherein the incorrect start logical sector number of the at least one zone is stored in the disc definition structure.

x. Regarding claim 24: The prior art of record fails to teach incorrect start logical sector number, which is stored in the disc definition structure, does not match a corresponding actual start logical sector number in a user data area of the test disc.

y. Regarding claim 25: The prior art of record fails to teach incorrect start logical sector numbers, which are stored in the disc definition structure, do not match corresponding actual start logical sector numbers in a user data area of the test disc.

z. Regarding claim 30: The prior art of record fails to teach recording and reproducing apparatus performs the process in the reading or writing mode on the test disc is determinable by a user.

aa. Regarding claim 31, 33, 36, 40, 44: The prior art of record fails to teach start logical sectors of each zone are incorrect.

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bb. Regarding claim 32: The prior art of record fails to teach reference drive records the start logical sector number of the zones in a disc definition structure of a DMA on the test disc.

cc. Regarding claim 35: The prior art of record fails to teach incorrect start logical sector number of the at least one zone, which is stored in the disc definition structure, does not match a corresponding actual start logical sector number in a user data area of the test disc.

dd. Regarding claim 37 and 38: The prior art of record fails to teach test disc has known physical defects stored on a blank disc.

ee. Regarding claim 41 and 42: The prior art of record fails to teach manufacturing a compliant recording and reproducing apparatus, comprising: manufacturing an uncertified recording and reproducing apparatus that updates and generates defect management area (DMA) information; and verifying whether the uncertified recording and reproducing apparatus is compliant with a standard.

Conclusion

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tim Bonura**.

- The examiner can normally be reached on **Mon-Fri: 7:30-5:00, every other Friday off**. The examiner can be reached at: **703-305-7762**.

27. If attempts to reach the examiner by telephone are unsuccessful, please contact the examiner's supervisor, **Rob Beausoliel**.

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- The supervisor can be reached on **703-305-9713**.

28. The fax phone numbers for the organization where this application or proceeding is assigned are:

- **703-872-9306 for all patent related correspondence by FAX.**

29. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov/>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

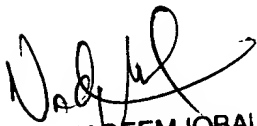
30. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **receptionist** whose telephone number is: **703-305-3900**.

31. Responses should be mailed to:

- **Commissioner of Patents and Trademarks**

P.O. Box 1450

Alexandria, VA 22313-1450


NADEEM IQBAL
PRIMARY EXAMINER

Tim Bonura
Examiner
Art Unit 2114

tmb

March 22, 2004